REMARKS

Claims 10 and 11 are being canceled without prejudice to filing in a subsequent application and only to reduce fees. Claim 23 is being amended. Claims 24-27 are being added. Upon entry of this Amendment claims 1-9, 21 and 23-27 will be pending in the application.

The amendment to claim 1 is supported by the specification at page 8 and by as filed claim 1. The amendment to claim 23 and new claims 24-25 are supported by the specification at pages 16 to 18. New claims 26-27 are supported by the specification at page 8 and 17.

The compounds of new claims 25 and 27, e.g. N-(4-hydroxyphenyl)arachidonylamide and N-(3-hydroxyphenyl)arachidonylamide, were disclosed in an article titled "Functional Role of High-Affinity Anandamide Transport, as Revealed by Selective Inhibition" published in SCIENCE, volume 277, pages 1094 - 1097 and dated August 22, 1997. That article lists authors including the present inventors; is based on the present invention; and was published less than one year prior to the effective priority date claimed for this application. This article was cited in the IDS filed on September 2, 1999, was reviewed and acknowledged in the Office communication mailed on 7/26/2002.

Claims 4 and 7-11 are indicated to be withdrawn from consideration. Claims 23-24 and 26 are generic and read upon the species previously elected. Claims 25 and 27 do not appear to read on the species previously elected.

Status of the pending claims.

In the Office communication dated 8/25/04 claims 1-11, 21 and 23 were indicated to be pending and claims 7-11 were indicated to be withdrawn from consideration. The Office communication of 3/31/2003 imposed an Election of Species. In Response to the 3/31/2003 Office communication Applicant elected a compound comprising a hydroxy substituted heterocyclic Z moiety. Applicant presumes that the withdrawal of claims 7-11 is a result of the above Election of Species.

The present Office communication cites references disclosing biological methods using the compounds olvanil, arvanil and capsaicin. All of olvanil, arvanil and capsaicin have a 4-hydroxy-3-methoxyphenyl headgroup. None of olvanil, arvanil and capsaicin has a hydroxy substituted heterocyclic headgroup.

The 3/31/2003 Office communication indicated that additional species will be considered upon allowance of a generic claim. The headgroup in the cited references is different than the Z moiety previously chosen and under examination. Thus, it appears that the examination of this application has been extended to additional species so that claims 7-9 should not be withdrawn and all pending claims should be examined.

The rejection of claims 1-3, 5-6, 21 and 23 under 35 U.S.C. §102(a).

- the Melck et al reference

Claims 1-3, 5-6, 21 and 23 were rejected under 35 U.S.C. §102(a) as having each and every feature and interrelationship anticipated by Melck et al., Unsaturated Long-Chain N-Acyl-vanillyl-amides (N-AVAMs): Vanilloid Receptor Ligands That Inhibit Anandamide-Facilitated Transport and Bind to CB1 Cannabinoid Receptors, Biochemical and Biophysical Research Communications, volume 262, Issue 1 (19 August 1999) 275-284. Enclosed are pages from the Science Direct website indicating the 8/19/1999 publication date of the Melck et al. reference.

The present application was filed on 6/9/1999. 35 U.S.C. section 102 states, with underlining added:

> A person shall be entitled to a patent unless--
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or . . .

The Melck et al. reference was published on 8/19/1999, more than two months after the application filing date. Clearly the Melck reference was not published before the filing date of the present application. Applicants respectfully traverse this rejection of claims 1-3, 5-6, 21 and 23 under 35 U.S.C. §102(a). The pending claims are not

anticipated by the Melck et al reference and are patentable for at least this reason.

The Office communication states: "Melck teaches a method of inhibiting anandamide-facilitated transport comprising the administration of olvanil and arvanil to a patient." The structures of olvanil (N-[(4-hydroxy-3-methoxyphenyl)methyl]-9Z-octadecenamide) and arvanil (N-[(4-hydroxy-3-methoxyphenyl)methyl]-5Z,8Z,11Z,14Z-eicosotetrae namide) each include 4-hydroxy-3-methoxyphenyl headgroups. See attached pages from Material Safety Data Sheets for Olvanil and Arvanil.

Claim 1 recites in one pertinent part:

> Z is selected from the group consisting of hydrogen, lower alkyl, hydroxy substituted lower alkyl, hydroxy substituted lower alkyl forming a ring with the Y group amide radical, aryl, hydroxy substituted aryl, heterocyclic, hydroxy substituted heterocyclic, a non-aromatic ring system of 4 to 8 carbon atoms containing one or more heteroatoms such as oxygen or nitrogen with the Y moiety amido nitrogen forming part of the ring structure or a hydroxy substituted non-aromatic ring system of 4 to 8 carbon atoms containing one or more heteroatoms such as oxygen or nitrogen with the Y moiety amido nitrogen forming part of the ring structure; with the proviso that,
>
> if X contains from 18 to 21 carbon atoms and Y is an amide radical, then Z cannot be hydrogen.

Claims 1 and 23 do not recite that Z can be 4-hydroxy-3-methoxyphenyl. Thus, the Melck reference disclosure of olvanil and arvanil does not appear to anticipate claims 1 or 23 or claims dependent therefrom. The pending claims are not anticipated by the Melck et al reference and are patentable for at least this reason.

- the Beltramo et al. reference

Claims 1-3, 5-6, 21 and 23 were rejected under 35 U.S.C. §102(a) as having each and every feature and interrelationship anticipated by Beltramo et al., Anandamide Transport Inhibition by the Vanilloid Agonist Olvanil, European Journal of Pharmacology, volume 364, Issue 1, (January 1, 1999) 75-78(4).

The Office communication states: "Beltramo teaches a method of inhibiting

anandamide-facilitated transport comprising the administration of olvanil and capsaicin to a patient." The structures of olvanil and capsaicin each include 4-hydroxy-3-methoxyphenyl headgroups. Claims 1 and 23 do not recite that Z can be 4-hydroxy-3-methoxyphenyl. Thus, the Beltramo et al. reference does not anticipate claims 1 or 23 or claims dependent therefrom. The pending claims are not anticipated by the Beltramo et al. reference and are patentable for at least this reason.

Claims 5-6 and 21 each require that X has two or more nonconjugated double bonds. The structures of olvanil and capsaicin each contain only a single double bond in the tail portion. Claims 5-6 and 21 are not anticipated by olvanil or capsaicin and are patentable for at least this reason.

- the DiMarzo et al. reference

Claims 1-3, 5-6, 21 and 23 were rejected under 35 U.S.C. §102(a) as having each and every feature and interrelationship anticipated by DiMarzo et al., Interactions Between Synthetic Vanilloids and the Endogenous Cannabinoid System, FEBS Letters, Volume 436, Issue 3, (10/9/1998), 449-454.

The Office communication states: "DiMarzo teaches a method of inhibiting anandamide-facilitated transport comprising the administration of N-[(4-hydroxy-3-methoxyphenyl)methyl]-9-octadecenamide to a rat." The compound N-[(4-hydroxy-3-methoxyphenyl)methyl]-9-octadecenamide appears to be synonymous with olvanil (see enclosed material data sheet) and, as discussed above, includes a 4-hydroxy-3-methoxyphenyl headgroup.

Claims 1 and 23 do not recite that Z can be 4-hydroxy-3-methoxyphenyl. Thus, the DiMarzo et al. reference does not anticipate claims 1 or 23 or claims dependent therefrom. The pending claims are not anticipated by the DiMarzo et al. reference and are patentable for at least this reason.

Claims 5-6 and 21 each require that X has two or more nonconjugated double

bonds. The structure of N-[(4-hydroxy-3-methoxyphenyl)methyl]-9-octadecenamide e.g. olvanil, appears to contain only a single double bond in the tail portion. Claims 5-6 and 21 are not anticipated by the Dimarzo et al. reference and are patentable for at least this reason.

In summary, Applicants have addressed each of the rejections within the present Office Action. It is believed the application now stands in condition for allowance, and prompt favorable action thereon is respectfully solicited.

The Examiner is invited to telephone Applicant's attorney if it is deemed that a telephone conversation will hasten prosecution of this application.

Respectfully submitted,

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By: _____

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